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AMENDMENT

In the Claims

Please amend claims 1-3, 7, 10-19, 21-22, 24, 26-29, 31-32, 35-40 and 42..

1. (Amended) A composition for generating a complex-forming metal ion labeled agent, the compositions comprising:
 - (a) a metal support surface; and
 - (b) a conjugate releasably bound to the support surface, the conjugate comprising a ligand and a targeting molecule;wherein the conjugate [is capable of coordinating] coordinates with a complex-forming metal ion so that the labeled conjugate is released from the support surface.
2. (Amended) The composition of claim 1, wherein the metal support surface [is capable of] releasably [coordinating] coordinates to sulfur or phosphorous and the ligand comprises a sulfur or phosphorous atom for binding to the metal support surface.
3. (Amended) The composition of claim 2, wherein the ligand comprises a sulfur atom attached to a sulfur protecting group, wherein the metal support surface [being capable of binding] binds to the protected sulfur atom thereby releasing the sulfur protecting group from the sulfur atom and forming a thiol bond with the ligand.
7. (Amended) The composition of claim 2, wherein the ligand comprises:
 - (a) a surface binding group selected from the group consisting of a cysteine amino acid residue, a cysteine amino acid residue derivative, a thiol or thioester group attached to an organic molecule, an amino acid residue, an amino acid residue derivative including phosphorous and a phosphorous containing organic molecule, wherein the amino acid residue derivative or organic molecule [is capable of releasably binding] binds to the support surface; and
 - (b) at least one accessory group [capable of coordinating] coordinates with the complex-forming metal ion.
10. (Amended) The composition of [any one of claims 7 to 9] claim 8, wherein the ligand comprises 3 accessory groups selected from the group consisting of (a)

nitrogen, oxygen or sulfur atom incorporated in an amino acid residue; (b) nitrogen, oxygen, selenium, phosphorous or sulfur atom incorporated in an amino aside residue; (c) a nitrogen, oxygen, selenium, phosphorous or sulfur atom incorporated in an organic molecule; and (d) a combination of one or more of (a) to (c), wherein the residues, derivatives and/or molecules have metal coordinating activity.

11. (Amended) The composition of [any one of claims 1 to 10] claim 1, wherein the targeting molecule comprises a molecule having agonist or antagonist activity selected from the group consisting of a polypeptide, a peptide, a nucleic acid molecule, an oligonucleotide, a saccharide, an oligosaccharide, a steroid, a cyclic peptide, a peptide or polypeptide mimetic, an enzyme substrate, an inhibitor and a small organic molecule.
12. (Amended) The composition of [any one of claims 1 to 11] claim 1, wherein the targeting molecule comprises a peptide, a polypeptide, a peptide or polypeptide mimetic or a small organic molecule.
13. (Amended) The composition of [any one of claims 1 to 12] claim 1, wherein the targeting molecule comprises a molecule selected from the group consisting of a bombesin 7-14 fragment, QWAVGHLM, TKPPR, RGDS and a small organic molecule that targets a receptor or a transporter.
14. (Amended) The composition of [either of claims 6 or 13] claim 6 or claim 13, wherein the receptor or transporter is selected from the group consisting of a dopamine receptor or transporter, a serotonin receptor or transporter, a sigma receptor, GABA receptor, a nicotinic receptor, a cholinergic receptor, a norepinephrine receptor or transporter, a glucose transporter and an opiod receptor.
15. (Amended) The composition of [any one of claims 1 to 14] claim 3, wherein the metal support surface comprises a metal selected from the group consisting of gold, silver, copper and a metal [capable of releasably binding] that releasably binds sulfur or phosphorous for forming a metal complex.
16. (Amended) The composition of [any one of claims 1 to 14] claim 3, wherein the metal support surface comprises gold.
17. (Amended) The composition of [any one of claims 1 to 16] claim 15, wherein the complex-forming metal is selected from the group of metals and radioisotopic metals consisting of Tc, Re, Mn, Fe, Co, Ni, Zn, Cd, Mo, W, Cu, Ag, Au, Ti, Hg, Cr and Rh.
18. (Amended) The composition of [any one of claims 1 to 16] claim 17, wherein the complex-forming metal is selected from the group of metals and radiosotopic metals consisting of Tc, Cu and Re.

19. (Amended) A method for generating a complex-forming metal ion labeled diagnostic agent or radiotherapeutic agent, comprising: (a) providing a composition according to [any one of claims 1 to 18] claim 1; and (b) contacting the composition with the complex-forming metal ion to form a coordinate bond between the complex-forming metal ion and the agent so that the complex-forming metal labeled agent is released from the support surface.
21. (Amended) A metal ion labeled agent prepared using a composition of [any one of claims 1 to 18] claim 1.
22. (Amended) A technetium or rhenium labeled agent prepared using a composition of [any one of claims 1 to 18] claim 1, wherein the agent is labeled with ^{99m}Tc and has a specific activity of greater than 10,000 Ci/mmol or the agent is labeled with ^{188}Re and has a specific activity of greater than 3,000 Ci/mmol.
24. (Amended) A pharmaceutical composition for radiotherapy or imaging, comprising a carrier and a complex-forming metal ion labeled agent, wherein the agent is prepared using a composition of [any one of claims 1 to 18] claim 1.
26. (Amended) A method of detecting the presence or assessing the severity of a disease, disorder or abnormal physical state in a mammal comprising:
- (a) administering an effective amount of the agent or composition of [any one of claims 21 to 25] claim 22 or claim 24; and
 - (b) detecting the presence or assessing the severity of the disease, disorder or abnormal physical state.
27. (Amended) A method of radiotherapy of a disease, disorder or abnormal physical state in a mammal comprising administering an effective amount of the agent or composition of [any one of claims 21 to 25] claim 22 or claim 24.
28. (Amended) The method of [either of claims 26 or 27] claim 26, wherein the complex-forming metal labeled imaging agent is administered by an intravenous route.
29. (Amended) The method of [any one of claims 26 to 28] claim 26, wherein the amount of complex-forming metal labeled agent administered to the mammal is about 0.01 mcg/kg/minute to 1,000 mcg/kg/minute.
31. (Amended) The method of [any one of claims 26 to 30] claim 26, wherein the mammal is a human.
32. (Amended) The method of [any one of claims 26 to 31] claim 26, wherein the disease, disorder or abnormal physical state is selected from the group consisting of oncological, neurological, inflammatory, infection, and degenerative diseases, disorders and abnormal physical states.

35. (Amended) A kit for preparing a complex-forming metal ion labeled agent, the kit comprising a metal support surface, conjugate and a predetermined quantity of complex-forming metal ion, the conjugate being [capable of being] releasably bound to the support surface and [capable of coordinating] which coordinates with the complex-forming metal ion so that the conjugate is released from the metal support surface.
36. (Amended) The kit of claim 35, wherein the conjugate comprises a sulfur atom attached to a sulfur protecting group, wherein the metal support surface [being capable of binding] binds to the protected sulfur atom thereby releasing the sulfur protecting group from the sulfur atom and forming a thiol bond with the conjugate.
37. (Amended) The kit of claim 35, wherein the metal support surface [is capable of] releasably [coordinating] coordinates to sulfur or phosphorous and the conjugate comprises a sulfur or phosphorous atom for binding to the metal support surface.
38. (Amended) The kit of claim 27, wherein the conjugate comprises a ligand and a targeting molecule, wherein the ligand comprises:
- (a) a surface binding group selected for the group consisting of a cysteine amino acid residue, a cysteine amino acid residue derivative, a thiol or thioester group attached to an organic molecule, an amino acid residue derivative including phosphorous and a phosphorous containing organic molecule, wherein the amino acid residue, amino acid residue derivative or organic molecule [is capable of releasably binding] releasably binds to the support surface; and
 - (b) at least one accessory group [capable of coordinating] that coordinates with the complex-forming metal ion.
39. (Amended) The kit of [any one of claims 35 to 38] claim 35, wherein the metal support surface comprises a metal selected from the group consisting of gold, silver, copper and a metal [capable of releasably binding] that binds sulfur or phosphorous for forming a metal complex; and the complex-forming metal is selected from the group of metals and radiosotopic metals consisting of Tc, Re, Mn, Fe, Co, Ni, Zn, Cd, Mo, W, Cu, Ag, Au, Ti, Hg, Cr and Rh.
40. (Amended) The kit of [any one of claims 35 to 39] claim 39, further comprising at least one agent selected form the group consisting of a reducing agent, a bulking agent and a pH stabilising agent.
42. (Amended) The method of claim 41, wherein the metal support surface comprises a metal selected from the group consisting of gold, silver, copper and a metal [capable of releasably binding] that releasably binds sulfur or [forming] forms a metal complex; and the complex-forming metal is selected from the group of metals and radioisotopic metals consisting of Tc, Re, Mn, Fe, Co, Ni, Zn, Cd, Mo, W, Cu, Ag, Au, Ti, Hg, Cr and Rh.

REMARKS

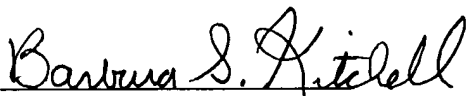
Status of the Claims

Claims 1-3, 7, 10-19, 21-22, 24, 26-29, 31-32, 35-40 and 42 have been amended. Claims 1-44 are pending in the case.

A separate clean copy of the amended claims is attached as Appendix A.

Applicants have submitted this amendment in order to reduce the calculated number of dependent claims.

Respectfully submitted,



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